

IN THE SPECIFICATION:

Please substitute the attached sections or paragraphs of pages 9, 10, 11 and 12 for the relevant sections or paragraphs of pages 9, 10, 11 and 12 of record.

Section 4 of Page 9 of Specification:

1.1.1) Start loop for the attenuator element (k)

$$\sigma_a + \sigma_a + Z_{(k)} \times \sigma_a$$

$$PE_{(i,j,k)} - PP_{(i,j,k)} - C_{(i,j,k)}$$

$$\mu_a(i,j,k) = [\sigma_a PE_{(i,j,k)} + \sigma_a PP_{(i,j,k)} + Z_{(k)} \times \sigma_a C_{(i,j,k)}] \times \rho_{(k)} \times A_v / A_{(k)}$$

where: $\sigma_a PE_{(i,j,k)}$ = effective photoelectric absorption cross-section

$\sigma_a C_{(i,j,k)}$ = Compton effective absorption cross-section

Section 2 of Page 10 of Specification:

$$\mu_{a(i,i)}^{(Nal)} = \frac{[\sigma_{PE(i)}^{(Nal)} + Z_{(Nal)} \sigma_{C(i)}^{(Nal)}] \times \frac{A_v}{A_{(Nal)}} \times \rho(Nal)}{A_{(Nal)}}$$

Section 2 of Page 11 of Specification

$$\frac{\sigma_{dif_{C(j')}}(NaI) \times Z_{(NaI)} \times \text{Final flux}_{(i,j',k)} \times A_v \times \rho_{(NaI)} \times A_{(NaI)}}{A_{(NaI)}}$$

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$$= \frac{\sigma_{\text{dif}_{\text{C}(\gamma)}}(\text{NaI}) \times Z_{(\text{NaI})} \times \text{final flux}_{(i,j,k)} \times A_v \times \rho_{(\text{NaI})} \times X_{(\text{NaI})}}{A_{(\text{NaI})}}$$

where: $\sigma_{\text{dif}_{\text{C}(\gamma)}}(\text{NaI})$ = effective Compton front scattering cross-section

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$$= \frac{\sigma_{\text{dif}_{\text{C}}(\gamma)}(\text{NaI}) \times Z_{(\text{NaI})} \times \text{final flux}_{(i,j,k)} \times A_v \times \rho_{(\text{NaI})} \times X_{(\text{NaI})}}{A_{(\text{NaI})}}$$

where: $\sigma_{\text{dif}_{\text{C}}(\gamma)}$ = effective Compton background scattering cross-section.